

The Effect of Peers Support on Fear of Hypoglycemia in Iranian Patients with Type 1 Diabetes: A Clinical Trial Study

Abstract

Background: Fear of hypoglycemia is a medical emergency which leads to disrupt individuals' normal lives. Peers support is a hopeful approach to improve diabetes self-care behaviors. This study was conducted to assess the effect of peers support on the fear of hypoglycemia in patients with type 1 diabetes. **Materials and Methods:** This randomized clinical trial study was performed among 60 patients with type 1 diabetes in Qazvin city from September 2019 to October 2020. Patients were assigned to control and intervention groups using a random method. The data collection tools included demographic characteristics and a standard questionnaire for Hypoglycemia Fear Survey (HFS). Patients in the intervention group were trained by skilled peers for 2 months, but those of the control group only received routine hospital training. The data were analyzed by SPSS version 16 and paired and independent *t*-test. **Results:** The scores of the fear of hypoglycemia in diabetic patients in the two groups had no significant statistical difference before intervention ($t_{33} = 0.93, p = 0.94$). But after the intervention, the independent *t*-test showed that there was a significant difference between the scores of the fear of hypoglycemia in both groups ($t_{33} = -2.13, p = 0.03$). **Conclusions:** Considering the results of the current study, peer support for diabetic patients is an effective way to reduce the fear of hypoglycemia. Therefore, it is recommended using this training method to train diabetic patients.

Keywords: *Diabetes mellitus, fear, hypoglycemia, Iran, peer group, type 1*

Introduction

Diabetes is a major global problem.^[1] Type 1 diabetes is a chronic autoimmune metabolic disease, resulting in insulin deficiency,^[2,3] that neglecting it leads to great and serious problems for the community.^[4] It is estimated that only in 2013, approximately 380 million adults were living with diabetes (all types), and this number will rise to 590 million by 2035.^[5-7] In Iran, more than 3 million people have diabetes, if effective measures are not taken, by 2030 this number will reach about seven million. The annual incidence of type 1 diabetes in Iran has been estimated at 3.7 per 100,000 people.^[8] The type 1 diabetes management is complex and requires significant changes in the patient's lifestyle and the patient is responsible for a significant part of the care.^[2] One of the prevailing acute complications of type 1 diabetes is hypoglycemia.^[9]

There is no doubt that hypoglycemia is a common and costly complication in the treatment of type 1 diabetes^[10]

and is a medical emergency which can disrupt a person's normal life.^[11] The physical, psychological, and cognitive symptoms of the hypoglycemia could cause embarrassment and concern for type 1 diabetes.^[10] The term fear of hypoglycemia is used to describe severe symptoms such as anxiety in people with diabetes and their families, raising concerns about hypoglycemia and improper behaviors like decreasing insulin consumption, and over-treating hypoglycemia.^[12-14] Erol showed that type 1 diabetic patients experience a more severe degree of hypoglycemia.^[15]

According to the guidelines of the American Diabetes Association, diabetes care is a self-care method.^[16] One teaching method to patients is education by peers, which is effective in creating an environment for learning and promoting changes related to the efficient health.^[17] Various support resources should be used in promoting patients' health, such as family, friends, relatives, colleagues, healthcare providers,

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